

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER’S) CASE NO. IPC-E-20-02
PETITION TO DETERMINE THE PROJECT)
ELIGIBILITY CAP FOR PUBLISHED)
AVOIDED COST RATES AND THE) ORDER NO. 34913
APPROPRIATE CONTRACT LENGTH FOR)
ENERGY STORAGE QUALIFYING)
FACILITIES)

On January 21, 2020, Idaho Power Company (“Idaho Power” or “Company”) petitioned the Commission to determine avoided cost rates, contract terms, and conditions applicable to energy storage qualifying facilities (“QF” or “QFs”) under the Public Utility Regulatory Policies Act of 1978 (“PURPA”).

On October 2, 2020, the Commission established a 100 kW project eligibility cap for energy storage QFs. Order No. 34794. The Commission determined that, consistent with its prior implementation of PURPA, energy storage QFs below the project eligibility cap are eligible for 20-year contracts and avoided cost rates calculated using the surrogate avoided resource method (“SAR Method”) whereas QFs above the project eligibility cap are eligible for 2-year contracts and avoided cost rates calculated by the incremental cost integrated resource plan method (“IRP Method”). The Commission ordered the Company to file an updated avoided capacity methodology within 30 days. *Id.*

On October 30, 2020, the Company filed a compliance filing pursuant to Order No. 34794.

On November 24, 2020, the Commission issued a Notice of Compliance Filing. Order No. 34844.

On December 29, 2020, Commission Staff filed compliance filing comments.

On January 12, 2021, the Company filed compliance filing reply comments.

Now, the Commission approves the Company’s compliance filing, with modifications discussed below.

THE COMPLIANCE FILING

The Company stated that the avoided cost of capacity method in its compliance filing (the “System Peak Capacity Method”) is based on the Commission’s approved IRP Method for

calculating capacity, except under the System Peak Capacity Method, capacity payments are only to be paid during pre-determined peak hours. Idaho Power Compliance Filing at 2. Idaho Power identified its peak hours and premium peak hours under the System Peak Capacity Method (“Peak Hours” and “Premium Peak Hours”) using data from its system and regional energy markets. Idaho Power determined its Peak Hours using the load forecast annually updated for the IRP Method. *Id.* Idaho Power determined Premium Peak Hours, a subset of Peak Hours, using information from 1) its load, net of solar; 2) its Loss of Load Probability study; and 3) Energy Imbalance Market Locational Marginal Pricing. *Id.*

Using current information, Idaho Power identified its present Peak Hours as 1:00 p.m. – 10:00 p.m. in July and 3:00 p.m. – 8:00 p.m. in August. *Id.* Idaho Power identified Premium Peak Hours as 6:00 p.m. – 10:00 p.m. in July and from 4:00 p.m. – 8:00 p.m. in August. *Id.* Idaho Power stated that it targeted a four-hour block of Premium Peak Hours because that represents the typical output duration of a battery storage facility. *Id.* at 3. The Company stated,

These higher value hours occur during peak hours but when generation output from solar generation resources begins to decline later in the day, while load continues to persist at a high level. Providing a price signal to a battery energy storage QF to dispatch its output during these hours is likely to provide more of the benefits that a battery storage facility can deliver.

Id. at 7. Generation during hours that are not Peak Hours or Premium Peak Hours would receive no compensation for capacity. *Id.* at 8. Idaho Power proposed that the Premium Peak Hour rate be set at 120% of the base capacity price. *Id.* at 14. Raising the Premium Peak Hour rate does not increase the overall capacity payments because the amount available for all other Peak Hours is reduced by the amount paid during the Premium Peak Hours. *Id.* The Company proposed to update the Peak Hours and Premium Peak Hours each year on October 15 when it updates the load forecast, natural gas forecast, and long-term contract changes used in the IRP Method. *Id.* at 3.

Consistent with its approved method to calculate avoided capacity costs for other resource types under the IRP Method, Idaho Power applied adjustments to the annual surrogate capacity price. One adjustment is the QF’s contribution to peak (“CTP”). Idaho Power described the CTP as “the unique QF project’s expected contribution of capacity (MWs) to Idaho Power during Idaho Power’s peak customer load period.” *Id.* at 11. Idaho Power states that a 90th percentile exceedance factor is used to determine each resource’s CTP percentage. *Id.* Under a 90th percentile exceedance factor, the QF’s generation should exceed the planning criteria 90% of

the time. *Id.* The CTP value is calculated as a percentage and applied to the nameplate capacity of the proposed QF to determine the QF's MW CTP value. *Id.* Because there is no historic generation data for energy storage QFs on Idaho Power's system, Idaho Power used landfill gas or anaerobic digester as a proxy resource to determine an energy storage QF's CTP. *Id.* at 12. Idaho Power stated that as more battery storage data becomes available, it will continue to evaluate the appropriate battery storage CTP and update accordingly. *Id.*

Once the QF's CTP percentage is determined (also called the Peak Hour Capacity Factor in the Company's compliance filing), it is divided by a benchmark resource capacity factor to determine a ratio. *Id.* This ratio is then multiplied by the Benchmark Peak Hour Capacity Factor used in the 90th percentile planning criteria. *Id.* The result is the Peak Hour Capacity Factor Credit, which is used to determine the capacity prices applicable to the QF. *Id.* Based on current information, its proposed method, and a hypothetical 20 MW energy storage QF, Idaho Power calculated a Peak Hour rate of \$212.80/MWh and a Premium Peak Hour rate of \$309.84/MWh. *Id.* at 16.

COMMENTS

a. Commission Staff Comments.

Staff states the Company's method for determining Peak Hours and Premium Peak Hours is reasonable. Staff Compliance Filing Comments at 4. Staff believes that pricing Premium Peak Hours at 120% of the Capacity Price will provide incentive to QFs to deliver energy during the Company's most critical capacity need while also ensuring that customers do not pay more than the avoided cost of capacity. *Id.* at 6. Staff notes that applying a Peak Hour Capacity Factor Credit to derive the Capacity Price is the same method used for all other types of QFs with IRP Method contracts. *Id.* at 6. Staff believes it is reasonable to use landfill gas or an anaerobic digester as a benchmark resource for energy storage QFs until actual energy storage data is available. *Id.* at 7. Staff states that the Company's proposed method follows the IRP Method closely, but states that a more simplified approach could be taken. "The Capacity Price can be derived using the avoided annual capacity cost per kilowatt of a [natural gas-fired Simple Cycle Combustion Turbine] and then spreading the cost over the number of Peak Hours in a year. This would eliminate the need for QF-specific generation profiles and [Peak Hour Capacity Factor Credits]." *Id.* at 7. Staff recommends the Company explore this simpler approach prior to submitting the first IRP Method energy storage QF contract. *Id.*

Staff recommends updates to the Peak Hours and Premium Peak Hours should occur in the biannual capacity deficiency filing that occurs following IRP acknowledgment, rather than annually in the Company's updates to its load forecast, natural gas forecasts, and long-term contract information used as inputs to the IRP Method. *Id.* Staff states 1) the Peak Hours and Premium Peak Hours are not likely to change dramatically from year-to-year; 2) the biannual capacity deficiency filing is capacity related whereas the load and natural gas forecast update is energy related; and 3) updating with the load and natural gas forecasts on October 15 would require another update to SAR Method rates. *Id.* at 7-8.

Staff believes an annual adjustment to Peak Hours and Premium Peak Hours is unnecessary for QFs under contract and updates can occur when the contract is renewed. *Id.* at 8. Staff states that the Company's proposal to update Peak Hours and Premium Peak Hours during a contract may run afoul of 18 C.F.R. § 292.304(d)(2), because it might not allow a QF to establish the rates it will receive at the time the contract is signed. *Id.* at 8. Instead, Staff believes that the Peak Hours and Premium Peak Hours established at the time the contract is signed should continue to apply to that QF throughout the contract. *Id.* at 8-9. Staff believes the Company's proposal to allow QFs to update their generation profiles annually is a reasonable way to align production with Peak Hours and Premium Peak Hours. But rates would need to be recalculated if the generation profile is updated. *Id.* at 9.

Under the SAR Method, applicable to QFs under the project eligibility cap, Staff proposes using a Combined Cycle Combustion Turbine ("CCCT") natural gas plant as the surrogate capacity resource and spreading its annual costs over the Peak Hours while omitting Premium Peak Hours. *Id.* Staff proposes only Peak Hours be used for SAR Method contracts to simplify the rate structure and add certainty for small QFs. *Id.*

Staff expresses concerns about levelizing rates for QFs when the avoided cost of energy is applied to every hour in a contract term while the avoided cost of capacity is only applied to Peak Hours and Premium Peak Hours. *Id.* at 10. To levelize rates, Staff recommends separately levelizing the avoided cost of capacity and the avoided cost of energy rates. *Id.*

b. Idaho Power Reply Comments.

In reply, Idaho Power continues to advocate for its proposals. The Company reiterates its proposal to update Peak Hours and Premium Peak Hours each year on October 15 when it updates load and natural gas forecasts used to calculate the IRP Method. Idaho Power Compliance

Filing Reply Comments at 4. Idaho Power states that the biannual capacity deficiency filing is unrelated to determining Peak Hours and Premium Peak Hours. *Id.* at 4-5. Idaho Power also states that the Peak Hours and Premium Peak Hours should be based on the most current load forecast, which is updated annually on October 15. *Id.* at 5. Idaho Power states that the load forecast, which is updated annually on October 15, is the primary basis of determining the Peak Hours and Premium Peak Hours, and therefore it is reasonable to simultaneously update these elements. *Id.* at 6. Idaho Power states that because capacity deficiency updates are filed after an IRP is acknowledged, rather than upon filing, there is greater uncertainty as to when the update will occur. *Id.* at 7.

Idaho Power disagrees with Staff's recommendations about SAR Method contracts. The Company states that Staff's recommendations would cause inefficiencies, inconsistencies, discrepancies, and missed opportunities by imposing different requirements on SAR Method contracts and IRP Method contracts. *Id.* at 3-4. Idaho Power states that the technologies and operational capabilities are the same for energy storage QFs regardless of size. *Id.* at 7. Idaho Power recommends both SAR Method and IRP Method contracts have Peak Hours and Premium Peak Hours. *Id.* at 8. Idaho Power does not respond to Staff's recommendation to use a CCCT as a surrogate capacity resource for SAR Method contracts rather than a Simple Cycle Combustion Turbine ("SCCT"), which is used as a capacity surrogate for IRP Method contracts. Idaho Power states that the SAR Method currently allows for separate calculation of capacity and energy components and levelization of each component. *Id.* at 9.

Idaho Power proposes to wait until a SAR Method energy storage QF contract is proposed to the Company, at which time the Company will work with Staff to provide the proper rate to the proposed QF. *Id.* Idaho Power states that a similar situation occurred in IPC-E-19-39 for a fueled cogeneration QF. *Id.* Likewise, Idaho Power proposes to wait until it negotiates terms with a QF and submits them for Commission review rather than determining energy storage QF-specific terms in advance. *Id.* at 7.

Idaho Power states that QFs should not be able to lock in Peak Hours or Premium Peak Hours for the duration of the contract term. *Id.* at 8. The Company states that doing so would undermine the ability to provide a price signal to the QF to dispatch energy when it is most valuable to the Company's system. *See id.*

COMMISSION FINDINGS AND DECISION

The Commission has jurisdiction over this matter under *Idaho Code* §§ 61-501, -502 and -503. The Commission is empowered to investigate rates, charges, rules, regulations, practices, and contracts of public utilities and to determine whether they are just, reasonable, preferential, discriminatory, or in violation of any provision of law, and to fix the same by order. *Idaho Code* §§ 61-502 and 61-503. In addition, the Commission has authority under PURPA and FERC regulations to set avoided costs, to order electric utilities to enter fixed-term obligations to buy energy from QFs, and to implement FERC rules. The Commission may enter any final order consistent with its authority under Title 61 and PURPA.

Having reviewed the record, we find the Company's compliance filing reasonable with modification. The Company's compliance filing maintained the currently approved IRP Method for calculating avoided capacity costs and added a method to determine the Company's most high-value hours. These high-value hours are the hours that generally drive system additions and greater costs. By dispatching energy during these hours, a QF can help the utility avoid building new generation resources or procuring energy when it is most expensive in the market. By identifying its Peak Hours and Premium Peak Hours, the utility sends a price signal to energy storage QFs to dispatch energy at the times the utility most needs the energy. Because energy storage QFs can alter their output to respond to price signals, identifying and pricing high-value hours accordingly can encourage QF development and help the utility avoid higher-cost resources, benefiting ratepayers.

To ensure that the avoided cost rates are calculated using the most recent data, we find it just and reasonable for the Company to update its Peak Hours and Premium Peak Hours annually when it updates its load forecast, natural gas forecast, and contract information. An annual update accommodates changes in the electric grid, such as resource decisions that change the Company's generation portfolio or changes in customer load patterns, to be reflected in the determination of Peak and Premium Peak Hours. An annual update also allows changes in state or federal policies that could impact load or resources to be incorporated. Besides being more frequent, this update examines the Company's load forecast, which is the basis for its determination of Peak Hours. Including the Peak Hour and Premium Peak Hours in this annual update will also increase certainty regarding the timing of the update as it will not be exposed to the timing uncertainties of IRP

review and acknowledgment, as would be the case if the Peak Hours and Premium Peak Hours updates occurred during the first capacity deficit date filing.

We find it fair and just that updates to the Peak Hours and Premium Peak Hours only apply to new and renewal contracts. When a QF enters a contract, its Peak Hours and Premium Peak Hours will be known for the duration of the contract. While locking-in the Peak Hours and Premium Peak Hours for the term of the contract may impact the ability to discretely target specific hours for energy storage QF capacity contribution, it does provide QFs certainty regarding their commitments during the term of the contract. Relatedly, we find it in the public interest that contracts for energy storage QFs under the project eligibility cap, which currently are eligible for SAR Method rates, shall only include Peak Hours. By locking-in the Peak Hours for the duration of the contract and providing these smaller QFs the opportunity to recover the full capacity price through the broader range of Peak Hours, we provide these QFs with greater certainty about their rates. Additionally, Staff will calculate and publish the SAR Method rates for energy storage QFs as they do for all other resource types. Because the surrogate capacity resource under the SAR Method is a CCCT, we approve Staff's recommendation to use a CCCT as the surrogate capacity resource under the System Peak Capacity Method. This will maintain consistency across resource types under the SAR Method.

ORDER

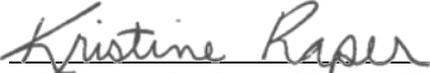
IT IS HEREBY ORDERED that Idaho Power's compliance filing is approved, as modified herein.

THIS IS A COMPLIANCE FILING ORDER. Any person interested in Order No. 34794 had twenty-one (21) days from the service date of that Order to seek reconsideration. No parties did so. Any person interested in the matters determined in this Order may petition for reconsideration within twenty-one (21) days of the service date of this Order with regard to any matter decided in this Order. Within seven (7) days after any person has petitioned for reconsideration, any other person may cross-petition for reconsideration. *See Idaho Code* § 61-626.

DONE by Order of the Idaho Public Utilities Commission at Boise, Idaho this 5th
day of February 2021.



PAUL KJELLANDER, PRESIDENT

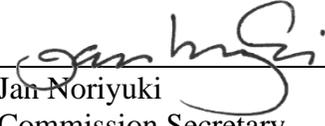


KRISTINE RAPER, COMMISSIONER



ERIC ANDERSON, COMMISSIONER

ATTEST:



Jan Noriyuki
Commission Secretary

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